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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,441	07/22/2003	David Miles	9052-160	6411
20792	7590	09/29/2005	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC PO BOX 37428 RALEIGH, NC 27627			NGUYEN, JIMMY T	
			ART UNIT	PAPER NUMBER
			3725	

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/624,441	Applicant(s) MILES, DAVID	
	Examiner Jimmy T. Nguyen	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/10/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Response to Amendment

The amendment filed on July 11, 2005 has been entered and considered and an action on the merits follows.

Drawings

The drawing correction filed July 11, 2005 fails to fully overcome the drawing objections set forth in the last Office action. Every feature of the invention specified in the claims must show in the drawings (see 37 CFR 1.83(a)). In order to avoid abandonment, the drawing informalities noted in the paper mailed on January 07, 2005, must now be corrected. The drawing objections noted in the last Office action is herein repeated.

The drawings are objected to under 37 CFR 1.83(a). **The drawings must show every feature of the invention specified in the claims.** Therefore, the structural arrangement of the mixer regions as claimed in claims 15-17, 32-34, 49-51, and 66-68; a temperature control element (claims 18, 35, 52 and 69); and a choke (claims 19, 36, 53, and 70) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 18, 20-25, 35, 37-42, 52, 54-59, and 69 are rejected under 35

U.S.C. 102(b) as being anticipated by Mange et al. (hereinafter "Mange") (US 4,746,464).

Regarding claims 1, 20, 37 and 54, the claims are amended to require that the process material comprises animal carcasses and/or bones. Mange discloses an apparatus and a method for extracting liquids from a process material comprising: a worm assembly (fig. 1) that is adapted to extract liquids from the process material, which comprises animal carcasses (col. 1, lines 13-15) by compressing (i.e. reducing a volume of the process material) (B1), decompressing (i.e. increasing the volume of the process material) (B2), mixing (B3); and recompressing (i.e. reducing the volume of the process material) (col. 6, lines 20-21).

Regarding claims 2 and 3, Mange discloses the screw assembly as claimed, thus the operation of the decompressing and the mixing steps are inherently the same.

Regarding claims 4, 21, 38 and 55, the screw assembly comprises an assembly of flights (3) in a tunnel (fig. 1) provided with a feed end (11) and a discharge end (17).

Regarding claims 5-7, 22-24, 39-41 and 56-58, the worm assembly comprises a mixer region (B3), wherein the mixer region comprises a disc assembly (36), which formed in an eccentric structure adapted to disrupt a flow of the material.

Regarding claims 8, 25, 42, and 59, the mixer region (B3) further comprises compressor region (see a right half of the mixer region, where screw flights (37) are provided to compress the material).

Regarding claims 18, 35, 52 and 69, Mange discloses a temperature control element (col. 2, lines 27-41).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-12, 26-29, 43-46, and 60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mange et al., in view of Böhm et al. (hereinafter "Böhm") (US 5,156,781).

Regarding claims 9-11, 26-28, 43-45 and 60-62, Mange discloses the invention substantially as claimed except for the specific shape of the mixer region. Mange discloses his mixer region is in a form of eccentric disc assembly (fig. 1). Mange does not disclose the mixer region comprises a frusto conical member, wherein the frusto conical member is smaller in diameter at a feed inlet end and greater in diameter at a discharge end. However, the patent to Böhm, teaches that it is old and well known in a screw press to provide a worm assembly (fig. 4) having a mixer region (32), wherein the mixer region comprises a frusto conical member in structural as claimed (fig. 4). Böhm teaches this configuration of the mixer region in order to achieve a low temperature mixing (col. 8, lines 1-4). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to replace Mange's eccentric disc assembly with a frusto conical member, as taught by Böhm, in order achieve a low temperature mixing.

Regarding claims 12, 29, 46, and 63, Mange, as modified by Böhm, discloses the compressor region is positioned between 50-60% of the length of the worm assembly as measured from the feed inlet end of the frusto conical member (fig. 1).

Claims 13-14, 30-31, 47-48, and 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mange et al., in view of Mackay et al. (hereinafter “Mackay”) (US 4,915,830). Mange discloses the invention substantially as claimed except for the specific location of the mixer region and the compressor region as claimed. However, the patent to Mackay teaches that it is old and well known in the screw pressing art to provide a screw press (fig. 2) with a mixer region (2c) is approximately in the middle of a worm assembly (fig. 2) and a compressor region (see a right half of the mixer region, where screw flights (111) are provided to compress the material) is positioned at between 50 and 65% of the length of the worm assembly (fig. 2). Mackay teaches the construction of these regions within the middle section of the worm assembly in order to repress the volume of material to a high consistency before being discharged from the press (col. 3, lines 1-3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the mixing and the compressor regions Mange's screw press within a middle section of the screw, as taught by Mackay, in order to repress the volume of material to a high consistency before being discharged from the press.

Claims 15-17, 32-34, 49-51, and 66-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mange et al., in view of Brambilla (US 5,088,914). Mange discloses the

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invention substantially as claimed except for a plurality of mixer regions. The patent to Brambilla, teaches that it is old and well know in the screw pressing art to provide a screw press (fig. 1) having a plurality of mixer regions (22, 26), wherein a first mixer region (22) is positioned between 25 and 40% of the length of a worm assembly (16), and a second mixer region (26) is positioned between 60 and 80% of the length of the worm assembly. Brambilla teaches the plurality of mixer regions in order to improve the mixing characteristics (col. 1, lines 29-31). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Mange's screw press with a plurality of mixer regions, as taught by Brambilla, in order to improve the mixing characteristics.

Claims 19, 36, 53, and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mange et al., in view of Lynch (US 4,421,937). Mange discloses the invention substantially as claimed except for a choke. The patent to Lynch teaches that it is old and well known in the screw pressing art to provide a screw press (fig. 1) with a choke (4) to regulate the amount of processed material being extruded through a discharge end (9). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Mange's screw press with a choke, as taught by Lynch, in order to regulate the amount of the processed material being extruded through the discharge end.

Response to Arguments

Applicant's arguments filed July 11, 2005 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy T. Nguyen whose telephone number is (571) 272-4520. The examiner can normally be reached on Mon-Thur 8:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272- 4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JTNguyen
September 26, 2005

A handwritten signature in black ink, appearing to read 'Derris H. Banks', with a long horizontal line extending to the right.

DERRIS H. BANKS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700